5. $\mathcal{IP} =$ **PSPACE**

5.1 Arithmetization

5.2 Interactive protocol for #SAT$_D$

5.3 Protocol for TQBF

See

📄 Sanjeev Arora, Boaz Barak:
Computational Complexity — A Modern Approach,
p. 157–161, Cambridge University Press: Cambridge-New York-Melbourne, 2009

📄 Holenstein, Thomas
Complexity Theory,
p. 64–69, Script, ETH Zürich, 2010

6. The power of the prover

7. Multiprover interactive proofs

8. Program checking

See

📄 Sanjeev Arora, Boaz Barak:
Computational Complexity — A Modern Approach,
p. 161–170, Cambridge University Press: Cambridge-New York-Melbourne, 2009

9. Outlook, More Topics in Complexity Theory

Among numerous other topics, see e.g. this on the GCT program:

📄 Mulmuley, Ketan D.:
  The GCT Program Toward the $\mathcal{P}$ vs. $\mathcal{NP}$ Problem,
  Comm. ACM **55**, 6, p. 100–109, ACM Press: New York, 2012

For a blurb on one of the authors of the textbook for this course, see

📄 Hyman, Paul:
  An Influential Theoretician,
  Comm. ACM **55**, 6, p. 24, ACM Press: New York, 2012